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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.                  | CONFIRMATION NO. |
|---|-------------|----------------------|--------------------------------------|------------------|
| 09/434,507  | 11/05/1999  | CHARLES J. STOUFFER  | 2288-006                             | 4043             |
| 26171   | 7590        | 12/30/2005           |                                      |                  |
| FISH & RICHARDSON P.C.<br>P.O. BOX 1022<br>MINNEAPOLIS, MN 55440-1022 |             |                      |                                      |                  |
|   |             |                      | EXAMINER<br>NEWHOUSE, NATHAN JEFFREY |                  |
|   |             |                      | ART UNIT                             | PAPER NUMBER     |
|   |             |                      | 3727                                 |                  |

DATE MAILED: 12/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/434,507

Applicant(s)

STOUFFER ET AL.

Examiner

Nathan J. Newhouse

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 3-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Introduction*

1. Applicant's arguments, filed in the Appeal Brief (filed 12/31/01) and Reply Briefs (filed 6/17/02, 4/7/04 and 10/13/05), with respect to the rejections of claims 1 and 3-21 over the references of Gieser (U.S. 2,941,064) have been fully considered. The statements made by the Board in the Remands (mailed 10/23/03 and 9/29/05) regarding the Gieser reference have also been carefully reviewed. After a search of class 228, subclass 193, an updated word search and a review of relevant non-patent literature, it was determined that the newly discovered reference of Wolfe et al. (U.S. 3,980,220) is relevant and appropriate for a prior art claim rejection. Therefore, the rejections based on the reference of Gieser have been withdrawn and the finality of that action (mailed 6/5/01) is withdrawn. A new grounds of rejection is made in view of Wolfe et al. Rejections based on the newly cited reference follow.

Accordingly, this action is made Non-Final.

### *Priority*

2. Applicant's claim for the benefit of a prior-filed provisional application 60/143,916 under 35 U.S.C. 119(e) is acknowledged.
3. Provisional Application 60/143,916, predates the Stouffer (U.S. 6,264,095) reference and provides adequate written descriptive support for the claimed invention.

### *Claim Rejections - 35 USC § 102*

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 7-10, 12, 13, 15-18 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Wolfe et al. (U.S. 3,980,220). Wolfe teaches a pair of opposed flanges 14 and 16 which are diffusion bonded across the entire bond region. To the degree set forth in claims 8 and 16, the gap between the flanges is considered to be the cavity between the two shells.

*Claim Rejections - 35 USC § 103*

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1 and 3-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wolfe et al. (U.S. 3,980,220) in view of Anderson (U.S. 3,964,667). Wolfe et al. discloses the claimed invention except for the compression force being applied via tooling. Wolfe et al. teaches compression force being applied to the flanges but does not use tooling to apply the compression force. Anderson teaches that it is known to use tooling to apply the compression force for diffusion bonding (see col. 3 lines 35-50). It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the method of Wolfe et al. with the compression force being applied via tooling, as taught by Anderson, in order to ensure that adequate pressure is applied to the joint.

Regarding claim 4, the modified method of Wolfe et al. does not teach the use of Beryllium or a beryllium alloy. Anderson teaches that it is known to diffusion bond beryllium pieces (see col. 3 lines 35-50). It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the modified method of Wolfe et al. with the pieces being made of beryllium, as taught by Anderson, in order to give the container the strength and properties characteristic of beryllium.

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Regarding claim 5, Wolfe et al. teaches using a temperature ranging from 1500°F to 1850°F.

Regarding claim 6, the modified method of Wolfe et al. does not teach that the compression force is in the range of about 2000 psi to 2500 psi. Wolfe et al. does teach that “conditions can be adjusted to ‘tailor’ the contact pressure to any desired level” (col. 4 lines 10-11). Anderson teaches that it is known to apply a pressure of 1100 to 2200 psi to the joint (see col. 3 lines 35-50). It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the modified method of Wolfe et al. with the compression force being in the range of about 2000 to 2500 psi, as taught by Anderson, in order to ensure the proper conditions for diffusion bonding.

8. Claims 11, 19 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wolfe et al. (U.S. 3,980,220) in view of Anderson (U.S. 3,964,667). Wolfe et al. does not teach the use of Beryllium or a beryllium alloy. Anderson teaches that it is known to diffusion bond beryllium pieces (see col. 3 lines 35-50). It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the method of Wolfe et al. with the pieces being made of beryllium, as taught by Anderson, in order to give the container the strength and properties characteristic of beryllium.

9. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wolfe et al. (U.S. 3,980,220) in view of Anderson (U.S. 3,964,667). Wolfe et al. does not teach that the compression force is in the range of about 2000 psi to 2500 psi. Wolfe et al. does teach that “conditions can be adjusted to ‘tailor’ the contact pressure to any desired level” (col. 4 lines 10-11). Anderson teaches that it is known to apply a pressure of 1100 to 2200 psi to the joint (see col. 3 lines 35-50). It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the method of Wolfe et al. with the compression force being in the range of about 2000 to 2500 psi, as taught by Anderson, in order to ensure the proper conditions for diffusion bonding.

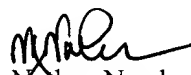
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*Conclusion*

10. This action is Non-Final.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan Newhouse whose telephone number is 571-272-4544. The examiner can normally be reached on Monday through Thursday. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Nathan Newhouse  
Supervisory Patent Examiner  
Art Unit 3727